

**ADCOM  
POWERAMP  
GFA-555**

## ADCOM GFA-555 OWNERS MANUAL

### WELCOME

It is very important that you thoroughly read this owners manual before turning your ADCOM GFA-555 power amplifier on. (For those in a hurry, please read Sections 1-5).

Your ADCOM GFA-555 represents the most advanced thinking in audio amplifier design. At 200 watts per channel, the GFA-555 offers an exceptional value; superior performance at a reasonable price. Some of the outstanding features of this product are:

- 200 watts per channel, 20Hz-20KHz, into an 8 ohm load with both channels driven with less than 0.09% total harmonic distortion.
- 325 watts per channel, 20Hz-20KHz, into a 4 ohm load with both channels driven with less than 0.25% total harmonic distortion.
- The ability to drive very low impedance loads.
- Bridged mode power of 600 watts, 20Hz-20KHz, into an 8 ohm load with less than 0.25% total harmonic distortion.
- Instantaneous Distortion Alert which indicates whenever distortion products are above the 1% level.

This manual has been written to anticipate the kinds of questions you might encounter while enjoying the full benefits of your ADCOM GFA-555 power amplifier. Please read it thoroughly to fully understand all the features offered and how they can be used to maximize the performance of your audio system.

## SECTION 1

### WHAT TO DO WHEN YOU OPEN THE BOX

Before each GFA-555 left the factory, it was carefully inspected for physical imperfections as a routine part of ADCOM's systematic quality control. This, along with full electrical testing, should insure a product flawless in both appearance and performance. After you have unpacked the amplifier, inspect it for any physical damage. Save the shipping carton and all packing materials as they are essential to reduce to a minimum the possibility of transportation damage should the product ever need to be shipped again. In the unlikely event that damage has occurred, notify your dealer immediately and request the name of the carrier so that a written claim to cover shipping damages can be initiated.

THE RIGHT TO ANY CLAIM AGAINST A PUBLIC CARRIER CAN BE FORFEITED IF THE CARRIER IS NOT NOTIFIED PROMPTLY AND IF THE SHIPPING CARTON AND PACKING MATERIAL ARE NOT AVAILABLE FOR INSPECTION. SAVE ALL PACKING MATERIALS UNTIL THE CLAIM HAS BEEN SETTLED.

## SECTION 2

### WHERE TO PUT IT (AND WHERE NOT TO!)

The GFA-555 utilizes large external heat sinks to dissipate heat from the power transistors. The top and bottom panels of the amplifier have slots to allow air to circulate inside the amplifier. Adequate air circulation must be available to assure cool operation of the amp. Therefore, the GFA-555 should not be completely enclosed with other heat producing components, and adequate space around the amplifier should be maintained. We recommend at least 3 inches on the top and 1 inch on the sides and rear for air circulation. If the GFA-555 is going to be mounted in an enclosed cabinet, it is recommended that the back of the cabinet have vents to allow air to circulate around the amplifier. With these considerations in mind, the GFA-555 should perform quite happily in any reasonable environment. Of course, such normal considerations as protection from excessive dust and moisture should always be observed. The ADCOM GFA-555 power amplifier has been carefully designed

with high quality components so that long term undiminished performance may be expected from the amp when it is operated in accordance with the instructions provided.

### SECTION 3

#### WHERE (AND HOW) ALL THE WIRES GO

All connections are conveniently located on the rear panel of the GFA-555. Any suitable program source, such as a control preamplifier may be used. ALL CONNECTIONS MUST BE MADE WITH THE AMPLIFIER UNPLUGGED AND THE AC POWER SWITCH OFF.

When making input signal connections, only high quality shielded (co-axial) audio cable should be used. The input jacks accept the standard two-conductor RCA-type phono plugs.

The line cord should be plugged into an AC outlet providing 120 volts AC, 50-60 Hertz. Output connections from the GFA-555 can be made to any standard or electrostatic loudspeaker system.

When connecting speakers to the GFA-555, you should always use the largest wire size (lowest gauge number) that is available to you. We recommend at least 16 gauge, 2-conductor cord (zip cord) for distances up to 25 feet. For distances of up to 50 feet, 14 gauge wire should be used. You also may wish to consider some of the commercially available speaker cables which have been specially designed to improve the connection between the power amplifier and the loudspeakers. In all cases, it is to your best sonic advantage to keep the wire distances as short as possible between the power amplifier and the loudspeakers. When connecting the speaker wires, correct phasing is required to obtain maximum bass response and to preserve a coherent sound when vocalists perform. The simplest way to ensure proper phasing is to closely inspect the wire being used. Some form of coding is always employed, whether a ridge or groove on one edge or side of the wire, or one of the wires may be tinned. Once determined, this same coded wire should be connected to the positive terminal of the speaker systems. Then follow the same procedure for the other loudspeaker. An alternate (but less reliable) method for

checking proper phase response is to connect two speakers and then place them side by side. Play some mono program material with heavy bass content through the system. Now turn off the system, and reverse one pair of leads to one speaker. Turn on the system and play the same passage again. If the bass response has increased, leave the system as it now is. If it has diminished, turn off the system and rewire it as it was originally set up. When making loudspeaker connections care must be taken to avoid short circuits which will cause improper operation of the amplifier.

#### BRIDGED (MONO) HOOKUP

The ADCOM GFA-555 can be used as an extremely powerful monaural amplifier without the use of any additional accessories or modifications.

For mono operation, the Stereo/Bridged switch on the rear panel should be placed in the bridged position. In the Bridged mode only a single input cable is used. The input cable to the GFA-555 should be plugged into the RIGHT CHANNEL input only.

When connecting a single speaker to the GFA-555 in bridged operation, the positive terminal of the speaker should be connected to the right channel positive (red) output post on the GFA-555. The negative terminal of the speaker should be connected to the left channel positive (red) output post. Remember that when connecting the speaker wires, you should maintain proper phasing to obtain maximum bass response and coherent sound quality.

#### AMPLIFIER PROTECTION CIRCUIT

Your GFA-555 power amplifier is equipped with external and internal fuses which are designed to protect your loudspeakers from possible damage and also to protect the amp itself under all but the severest abuse of operating conditions. A thermal cutoff is also employed to protect the amplifier under high temperature conditions.

Because of the great amount of electrical energy stored in its capacitors,

the design of the GFA-555 will allow music to remain audible for several seconds after the amplifier has been shut off. We suggest that you wait until the red power LED has stopped glowing before turning off your pre-amp and other associated audio equipment. This procedure will avoid turn-off transients from reaching your speakers.

#### SECTION 4

#### SAFETY WARNING

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

#### SERVICE TECHNICIANS NOTE

THE FILTER CAPACITORS USED IN THE GFA-555 RETAIN A CHARGE FOR SOME TIME EVEN AFTER THE UNIT IS TURNED OFF AND UNPLUGGED. DO NOT TOUCH ANY INTERNAL WIRING OR COMPONENTS INCLUDING THE INTERNAL FUSES UNTIL THE CAPACITORS ARE FULLY DISCHARGED. SEE GFA-555 SERVICE MANUAL FOR ADDITIONAL WARNINGS.

CAUTION: Burn-out of the output stage because of failure to observe the following precautions will void the warranty.

There is no such thing as absolute reliability or protection when amplifiers are abused. While the GFA-555 amplifier has been designed to operate reliably under normal conditions, it may not be impervious to gross abuse. There is one condition which must always be avoided: This condition is called RF Detection and because ADCOM amplifiers have an extremely wide bandwidth, RF Detection will almost certainly cause failure of the output devices if it occurs. Damage to, or failure of the equipment due to this reason is considered abuse, and is specifically excluded from the ADCOM warranty.

The following acts cause RF Detection and MUST BE AVOIDED:

1. Connecting the inputs or outputs while the amplifier is on.
  2. Using the "thumb test." It is a dangerous habit to connect cables to the inputs, touching the other end of the cable while the amplifier is on.
- This may not only cause amplifier failure but may destroy your loudspeakers



due to the high power surge emitted from the amplifier.

It is essential to follow the procedure of completely hooking up your system before turning anything on! A few simple precautions will contribute to trouble free performance. Because of the high power of the GFA-555, ADCOM will not be responsible for any damage to speakers or other components due to their inability to handle the amplifier's power output or for any other misuse.

## SECTION 5

### WHY WE BUILT IT THE WAY WE DID

The ADCOM GFA-555 represents a departure from many of the other currently available amplifier designs. This departure is the result of careful study of all known amplifier technology, circuits and parts. The major feature of the GFA-555 is its outstanding ability to drive virtually any speaker, regardless of impedance, to high sound levels while maintaining the sonic integrity of the music. By using a 700 watt transformer along with 60,000 microfarads of filter capacitance, the GFA-555 can provide continuous power, not only momentary power for demanding musical transients. Also contributing to the outstanding performance is the use of 16 high-current output transistors along with precision parts selection of the components used in all audio circuits.

The Instantaneous Distortion Alert circuit is a unique distortion detection circuit which reads all forms of distortion--THD, IM, slew induced, and DC offset. Peak LEDs, one per channel, will glow when distortion is over 1% regardless of the load impedance or reactance. In use, the LED can occasionally flicker under high volume listening. If they glow brightly or are on most of the time that you are listening, you are overdriving your equipment and should turn down your volume control.

We consider the GFA-555 a truly significant contribution to the advancement of sound technology. To ensure that the quality of construction is on par with the quality of sonics, (a much neglected area in many other amplifiers) the GFA-555 has been carefully developed with computer controlled metal fabrication techniques that maintain .005 of an inch tolerance throughout. Full electrical inspection of each

and every circuit board, sub-assembly, as well as the finished amplifier, provide a sonically and mechanically superior product for your enjoyment.

## SECTION 6

### THE CARE AND FEEDING OF YOUR GPA-555

Great care has been taken by ADCOM to assure that your amplifier is as flawless in appearance as it is electronically. The front panel is high-grade anodized aluminum, chosen for its durability and beauty. If the front panel should become fingerprinted or smeared, it can be cleaned with a damp, soft cloth.

UNDER NO CIRCUMSTANCES SHOULD A STRONG OR ABRASIVE CLEANER SUCH AS SCOURING POWDER OR OVEN CLEANER BE USED ON ANY PART OF THE AMPLIFIER.

The amplifier is protected by a line fuse on the rear panel. If power is switched on and the small red LED on the front panel does not illuminate after a few seconds, shut off the amplifier, unplug the AC line cord from the power outlet, and check the AC line fuse. If the fuse has opened, replace it ONLY with a fuse of equal value.

REPLACEMENT WITH AN INCORRECT FUSE OR ONE OF A HIGHER CURRENT RATING WILL NOT PROTECT THE AMPLIFIER AND WILL VOID THE WARRANTY.

If after replacing the fuse, it blows immediately, an electronic component failure must be suspected. No further attempts to replace the fuse should be made.

## SECTION 7

### IF YOU HAVE A PROBLEM OR QUESTION

ADCOM has a Technical Service Department to answer all questions pertinent to the installation and operation of your unit. Please feel free to write or call us in the event of any difficulty, and we shall endeavor to offer prompt advice.



If your problem cannot be resolved through our combined efforts, we may wish to refer you to an authorized repair agency, or we may prefer to authorize return of your unit to the factory. To aid us in directing you to a convenient service station, it would be helpful if you indicate which major city is accessible to your home.

Please address inquiries to:

ADCOM TECHNICAL SERVICE DEPARTMENT  
11 ELKINS ROAD  
EAST BRUNSWICK, NJ 08816  
(201) 390-1130

Be sure to include the serial number of your unit, date of purchase, and name and address of dealer. In the event it must be returned, an authorization form and proper packing instructions will be forwarded to you. This authorization form should be returned with your unit to identify it and avoid unnecessary delay.

UNDER NO CIRCUMSTANCES SHOULD YOUR UNIT BE SHIPPED TO THE FACTORY WITHOUT PRIOR AUTHORIZATION, OR WITHOUT ORIGINAL PACKING CARTON AND FILLERS.

If the original shipping carton has been lost or discarded, or if the carton is not in good condition, a duplicate carton may be obtained from our Service Department for a nominal charge.

Always ship PREPAID via UPS or other recognized surface carriers. DO NOT SHIP VIA PARCEL POST, since the packing will not withstand tough mail handling. We are forced to refuse most Parcel Post shipments since they arrive in such poor condition. FREIGHT COLLECT SHIPMENTS CANNOT BE ACCEPTED.

#### SECTION 8

#### ADCOM PROTECTION PLAN (U.S.A. ONLY)

ADCOM offers the enclosed one year LIMITED WARRANTY. Please read the details carefully to understand fully the extent of the protection offered by your warranty, its limits, and what responsibilities are required of you in order to obtain its benefits.